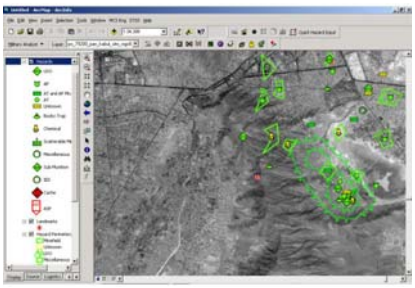
US Army Corps of Engineers®
Engineer Research and Development Center

Maneuver Control System – Engineer

Description and Background



Integrated GIS and C2 Functionality using the TMFDB

Maneuver Control System-Engineer (MCS-Eng) is a set of software tools being developed by **Project Director, Combat Terrain Information Systems (PD CTIS)** to bring the appropriate level of mobility and survivability information to engineers to support maneuver forces during battlefield planning and execution. MCS-Eng is being developed for all combat engineer units, both **Army Battle Command Systems (ABCS)** and non-ABCS. For ABCS units, MCS-Eng will be fully integrated software within the MCS architecture.

For support of operations during **Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF)**, 15 MCS-Eng stand-alone prototypes called the **Tactical Minefield Database (TMFDB)** were provided to Coalition Forces Land Component Commander-Engineer (CFLCC-C7) in Kuwait, Coalition Joint Task Force (CJTF-180) in Afghanistan, and CJTF-7 in Iraq. The TMFDB is an application built on the same commercial-off-the-shelf (COTS) software components that will comprise the **Commercial Joint Mapping Toolkit (C/JMTK).** MCS-Eng 1.0 will expand on capabilities of the TMFDB and will be the first released, fully integrated version of MCS built with C/JMTK components. Release 1.0 will be provided to MCS for integration in December 2003.

MCS-Eng will assist engineers by giving Engineer Units an easy-to-use, comprehensive C2 (Command and Control) capability that allows for planning, executing, reporting, and visualization that will update the **Common Tactical Picture (CTP)**. MCS-Eng capabilities focus on four major functional areas: Countermobility, Survivability, Mobility, and General Engineering.

Key Capabilities

An important software capability that Engineer officers need is the ability to keep track of the battlefield once missions are defined. MCS-Eng development is focused on providing:

1. Operations Order - Engineer Annex Generation
2. Real-time Engineering Reporting and Visual Updates
3. Reports of Initiation, Progress, and Completion
4. Tracking Engineer Units, Schedules, Assets, and Capabilities
5. Identifying Obstacle Reporting Conflicts
6. Automating **Joint Variable Message Format (JVMF)** Messaging

MCS-Eng will also provide tools for all echelons from Corps to Squad that improve the efficiency of engineers in conducting the **Military Decision Making Process (MDMP)** encompassing the following elements: **Intelligence Preparation of the Battlefield (IBP)**, **Engineer Battlefield Assessment (EBA)**, and **Course-of-Action Analysis**.

Point of Contact

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